

Attorney Docket No.: 205551-0002**REMARKS**

Claims 3, 4, 9, 10, 13, and 16 are pending in the Pending Application, with Claims 1, 2, 5-8, 11, 12, 14, and 15 having been previously withdrawn. In the present amendment, the specification has been amended to correct minor typographical errors, and to clarify that a "TCXO" is a temperature compensated crystal oscillator. In addition, the specification has been amended to move the priority claim to, and incorporation by reference of Japanese Patent Applications Nos. Hei 11-177098, filed June 23, 1999; and Hei 11-313900, filed November 4, 1999 from the last paragraph of the application to the first. Because the Pending Application was filed prior to November 29, 2000, it is not subject to the time limits for presenting a claim for foreign priority. 37 CFR 1.55(a)(1)(i)(B).

In addition, Claims 3, 4, 9, 10, 13, and 16 have been amended to improve the clarity of the claims. In addition, Claims 3 and 13 have been amended to specify that the frequency error correcting device, and the method, respectively, maintain the amplitude information of the complex base band signals when the complex base band signals are rotated in complex plane to correct frequency errors. Claims 3 and 13, as amended, are supported in the specification as filed on pages 36-37, lines 26-29 and 1-15, respectively. No new matter has been added by these amendments.

Claim Objection

The Examiner has objected to Claims 13 (and its dependent claim 16) due to the following informality in Claim 13, line 6: "base signal" should be --base band signals--. However, the Examiner has indicated that Claims 13 and 16 would be allowable if amended to overcome this objection.

Claim 13 has been amended in the manner suggested by the Examiner. It is, therefore, respectfully requested that this objection be withdrawn, and Claims 13 and 16 be allowed.

Claim Rejection - 35 U.S.C. § 103(a)

The Examiner has rejected Claims 3, 4, 9 and 10 under 35 U.S.C. § 103(a), as being unpatentable over Applicant's admission of prior art ("APA") in view of US Patent 5,285,472 ("Leonard").

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Claim 3 has been amended to more clearly point out the subject matter of the claimed invention. Specifically, Claim 3 has been amended to clarify that the frequency error correcting device "maintains the amplitude information of the I and Q components of the complex base band signal in the rotation corrected complex base band signal."

The Examiner has failed to present a prima facie case of obviousness because he has failed to show that cited references teach all the limitations of the claims. In order to set forth a prima facie case of obviousness, "...the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. § 2142 (citing In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). The Examiner has failed to show that the cited references teach a frequency error correcting device, which rotates the phase of a complex base band signal, and maintains the amplitude information of the in-phase (I) and quadrature phase (Q) components of the complex base band signal in the rotation corrected complex base band signal.

The Examiner acknowledges that the APA "does not disclose a frequency error correcting device that counts the number of chips of the baseband signals to be inputted, and performs a rotation correction by rotating a phase of the baseband signals by an angle obtained by dividing 2π by M." The Examiner states that Leonard discloses correction of a frequency offset in a despreading device rotating the phase of the baseband signal in 45 degree steps at eight times per cycle via a phase rotator and a modulo 8 counter prior to despreading.


Leonard discloses a phase quantizer 16 that includes an octant quantizer 36. The octant quantizer 36 quantizes the phase information of the inputted in-phase and quadrature phase components into one of eight (8) predetermined phase values. It is only this quantized phase information that is communicated to the acquisition processor 26 via leads 24 and rotated by phase rotors 62-64. (see Leonard, Figure 3, and column 3, lines 50-67). As a result, Leonard does not preserve the amplitude information of the I and Q components. Thus, Leonard does not teach a frequency error correcting device that rotates the phase of a complex base band signal, and maintains the amplitude information of the in-phase (I) and quadrature phase (Q) components of the complex base band signal in the rotation corrected complex base band signal. Therefore, it is respectfully requested that the rejection of Claim 3, and Claims 4, 9 and 10 that depend from Claim 3, be withdrawn.

Attorney Docket No.: 205551-0002**Conclusion**

In view of the amendments and remarks set forth in this Amendment and Response to Office Action, it is respectfully submitted that the Pending Application, including Claims 3, 4, 9, 10, 13 and 16, is in condition for allowance. Therefore, it is respectfully requested that the foregoing amendments be entered and the Pending Application be promptly allowed.

The Examiner is invited to contact the undersigned if such contact would in any way facilitate and/or expedite the prosecution of this application.

Respectfully submitted,

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